IN THE UNITED STATES COURT FOR THE DISTRICT OF UTAH

CENTRAL DIVISION

CLEARONE COMMUNICATIONS, INC., a Utah Corporation, Plaintiff, vs. ANDREW CHIANG, an individual, JUN YANG, an individual, LONNY BOWERS, an individual, WIDEBAND SOLUTIONS, INC., a Massachusetts corporation, and BIAMP SYSTEMS CORPORATION, an Oregon corporation, Defendants.	**ORDER AND MEMORANDUM DECISION** Case No. 2:07-cv-37 TC

Plaintiff ClearOne Communications, Inc. ("ClearOne") has moved for a preliminary injunction against Defendants Andrew Chiang, Jun Yang, Lonny Bowers, and WideBand Solutions, Inc. (collectively, "the WideBand Defendants"). ClearOne seeks to bar the WideBand Defendants from continuing to develop or delivering computer code—source code or object code—to non-party Harman Music Group, Inc. ("Harman").

ClearOne alleges that Defendants Jun Yang and Andrew Chiang—former employees of ClearOne's predecessor—misappropriated ClearOne's Honeybee Code, and that Dr. Yang breached his contract and his fiduciary duty not to disclose ClearOne's confidential information. According to ClearOne, WideBand Solutions, Inc. ("WideBand") derived the technology that

Harman wants to license ("Harman Code"[1]) from the Honeybee Code.

For the reasons stated more fully below, the court GRANTS the preliminary injunction and enjoins Dr. Yang, as well as his agents, servants, officers, employees, entities and those acting under his direction or control, from further developing or distributing any computer code to Harman.

BACKGROUND

Technical Background

A brief description of some of the most basic technology in computer programming is necessary to explain the court's decision.

An algorithm—which often serves as the basis for computer programming—is a series of commands designed to achieve particular results.[2] Because an algorithm dictates a specific order of inquiries, different algorithms could achieve the same result even if the inquiries are in a different order. An algorithm's architecture refers to its overall organization. Comprising the architecture[3] is a series of functional blocks, each of which makes an independent inquiry and represents an individual step of the algorithm. Naturally, the addition of functional blocks will result in a more complex algorithm. And each block may have design parameters, which add

---

[1]The court uses the phrase Harman Code to describe the technology represented by ClearOne's flowchart entitled "Wideband-Harmon2," created by ClearOne's expert, Thomas Makovicka. (See Wideband-Harmon2 Flowchart, Pl.'s Ex. 3.)

[2]The steps necessary to resolve a non-functioning lamp present an example of a very simple algorithm. Step one: determine if the lamp is plugged in. If yes, step two: replace the bulb. If still not functioning, step three: purchase a new lamp. (Id., ¶ 31.)

[3]For convenience, the court adopts the simplified terms "architecture," "functional blocks," and "parameters," the parties used in their submissions.

additional detail to the output of the functional block.

When designing software, a programmer will usually start with a schematic diagram—a flowchart—of the algorithm. At this stage, the programmer will develop the architecture, and specify the functional blocks and design parameters. Once the flowchart is complete, the algorithm is generally converted into source code, which programmers are able to read and understand. Often the source code is then converted into object code or machine code, which the computer can read and understand. Software known as a "compiler" is often used to convert the source code into object code. In this conversion, the compiler will remove the parts of the source code which the programmers could understand, leaving only code which is extremely difficult for a human to decipher.

Specific to this case, programmers develop audio digital signal processing ("DSP") algorithms to enhance sound quality. Examples of audio DSP algorithms are acoustic echo cancellation ("AEC") and noise filtration.

Factual Background

On July 5, 2000, Gentner Communications Corporation ("Gentner") entered into an Asset Purchase Agreement ("APA") to purchase assets from ClearOne, Inc., ("Old ClearOne") a company which developed and manufactured audio technology. At the time of the APA, Defendant Andrew Chiang was the President of Old ClearOne and signed the APA on behalf of the company. Defendant Jun Yang was a software and signal processing engineer with Old ClearOne.

Before the APA, Old ClearOne had developed digital audio processing codes and

algorithms for acoustic echo cancellation to enhance the quality of the ClearOne Speakerphone.

The source code and machine code used in the ClearOne Speakerphone was called "the

Honeybee Code." The Honeybee Code was included in the APA.[4] Gentner and its successors in

interest have not used or marketed the Honeybee Code in any way since 2002.

On the day the APA was executed—July 5, 2000—Dr. Yang accepted employment with

Gentner and signed a Confidentiality, Non-Competition, and Invention Assignment Agreement

("NDA"). As part of the NDA, Dr. Yang agreed that:

> At all times, both while I am employed with the Company and after the
> termination of my employment with the Company, I will keep in strict
> confidence all Confidential Information and I will not use or disclose any
> Confidential Information or anything relating to it in whole or part, nor permit
> others to use or disclose it in any way, without prior or written consent of the
> Company, except as may be necessary in the ordinary course of performing my
> duties as an employee of the Company.

(Yang Confidentiality, Non-Competition, and Invention Assignment Agreement, July 5, 2000,

Pl.'s Ex. 18, ¶ 1.3 (hereinafter "Yang NDA").[5])

The NDA expressly provided that "Confidential Information for this purpose includes but

is not limited to trade secrets, processes, formulas, computer programs, data know-how,

inventions, improvements, techniques, marketing plans, product plans, strategies, forecasts, and

customer lists, whether belonging to the Company or to any of its customers or suppliers." (Id., ¶

---

[4]The APA transfers to Gentner "Intellectual Property, . . . goodwill associated therewith . . ." and defines Intellectual Property as "all inventions . . . all trade secrets and confidential business information . . . all computer software . . . all other proprietary rights . . . ." (Asset Purchase Agreement Between Gentner and Old ClearOne, July 5, 2000, ¶ 1, Pl.'s Ex. 17.)

[5]Unless otherwise noted, all exhibit citations refer to the exhibits provided by the parties for the preliminary injunction hearings.

1.1.) And Dr. Yang agreed that "I understand that my employment with the Company creates a relationship of trust and confidence between me and the Company with respect to the Confidential Information that I may learn or develop during the period of my employment with the Company." (Id.) Dr. Yang also agreed that any inventions related to Old ClearOne's business "shall be the sole and exclusive property of the Company." (Id., ¶ 3.2.) Finally, under the terms of the NDA, Dr. Yang declared that he understood that any breach of this agreement could cause irreparable harm to Old ClearOne, entitling the company to injunctive relief. (Id., ¶ 5.2.)

In April of 2001, Dr. Yang resigned from Gentner.

On January 1, 2002, Gentner changed its name to ClearOne Communications, Inc. ("ClearOne").

In April of 2002, ClearOne entered into a licensing agreement with Defendant Biamp Systems Corporation ("Biamp") for the use of audio technology. This technology was not the Honeybee Code, and this agreement was ultimately terminated.

ClearOne learned that Biamp agreed to license AEC technology from a company founded by former employees Andrew Chiang and Jun Yang, called WideBand Solutions, Inc. ("WideBand"). The technology Biamp licensed from WideBand is called the "Biamp Code." By August of 2002, Dr. Yang and Mr. Chiang—on behalf of an entity called Echonology LLC—were involved in negotiations to license AEC software to Biamp. During these negotiations, Dr. Yang claimed in an email to Biamp, "I am sure our AEC (algorithm) is much better than Gentners' [sic]." (Aug. 16, 2002 Email from J. Yang to R. Lockhart & M.

Czyzewski, cc A. Chiang, Pl.'s Ex. 22.)

In January of 2007, ClearOne began this lawsuit against the WideBand Defendants[6] and

Biamp. By February of 2007, WideBand informed Harman—a prospective client—of this suit,

but the two entities continued in negotiations for WideBand to license its acoustic echo

cancellation technology to Harman. On July 26, 2007, WideBand and Harman consummated the

licensing agreement, expressing that Harman "desires WideBand to develop AEC Technology

specific to [Harman]'s intended application (the source code for which will be owned by

WideBand and will constitute trade secret technology of WideBand), and to thereafter license to

[Harman] the machine/object code for the same . . . ." (License Agreement, ¶ 1.3, attached as

Ex. 10 to Pl.'s Mem. Supp. of Mot. for Prelim. Inj.)

This preliminary inunction addresses only the development and delivery of the AEC

technology for Harman.

ANALYSIS

I.   Standard for Injunctive Relief

To obtain injunctive relief, ClearOne must show that: (A) it has a substantial likelihood of

success on the merits of the case, (B) it will suffer irreparable harm without the injunction, (C) its

threatened injury outweighs the harm that the injunction will cause to the Defendants, and (D)

the injunction is not against the public interest. Dominion Video Satellite, Inc. v. Echostar

Satellite Corp., 356 F.3d 1256, 1260 (10th Cir. 2004).

Arguing that ClearOne seeks a disfavored injunction, the WideBand Defendants urge the

---

[6]Although Defendant Lonny Bowers was not initially a named Defendant, he has been added to this suit.

court to apply a stricter standard. The Tenth Circuit has identified three types of disfavored

injunctions subject to the stricter standard: "(1) preliminary injunctions that alter the status quo;

(2) mandatory preliminary injunctions; and (3) preliminary injunctions that afford the movant all

the relief that it could recover at the conclusion of a full trial on the merits." O Centro Espirita

Beneficiente Uniao Do Vegetal v. Ashcroft, 389 F.3d 973, 975 (10th Cir. 2004). Under the

stricter standard, "a movant must 'satisfy an even heavier burden of showing that the four

[preliminary injunction] factors . . . weigh heavily and compellingly in movant's favor before

such an injunction may be issued . . . .'" Id. (quoting SCFC ILC, Inc. v. Visa USA, Inc., 936

F.2d 1096, 1098-99 (10th Cir. 1991)). The WideBand Defendants contend that the injunction

here would alter the status quo and would give ClearOne all the relief that it seeks. But the

WideBand Defendants' arguments are not persuasive.

First, because the court considers the status quo at the time before the dispute between

ClearOne and the WideBand Defendants began, ClearOne's injunction will not disturb the

recognized status quo. As explained by the Tenth Circuit, "[i]t simply cannot be the case that a

party can establish the status quo in a given case through secretive or clandestine activity." Id. at

981. The court must consider that "[t]he 'last peaceable uncontested status existing between the

parties before the dispute developed,' is most surely the open and notorious actions of the parties

before the dispute." Id. (quoting 11A Charles Alan Wright, et al., Federal Practice & Procedure

§ 2948, at 136 (2d ed. 1995)).

ClearOne began this lawsuit in January of 2007, before WideBand had entered into the

licensing agreement with Harman. And WideBand informed Harman of this lawsuit in February

of 2007, also before WideBand had entered into the licensing agreement with Harman. Consequently, the injunction would preserve the last peaceable uncontested status, at which point WideBand did not have a licensing agreement with Harman.

Second, this injunction would not award ClearOne all the relief it seeks. "The only reason to disfavor a preliminary injunction that grants substantially all the relief sought is if it would 'render a trial on the merits largely or completely meaningless.'" Prairie Band of Potawatomi Indians v. Pierce, 253 F.3d 1234, 1247 (10th Cir. 2001) (quoting Tom Doherty Assoc., Inc. v. Saban Entm't, Inc., 60 F.3d 27, 35 (2d Cir.1995)). At trial, ClearOne seeks exemplary and punitive damages for the alleged wrongdoing by the WideBand Defendants, as well as an ongoing prohibition of any future use of ClearOne's proprietary information. (See Third Am. Compl. (dkt. #500).)

Additionally, the Tenth Circuit has explained that rendering a trial meaningless "'must be supplemented by a further requirement that the effect of the order, once complied with, **cannot be undone**.'" Prairie Band of Potawatomi Indians, 253 F.3d at 1247 (quoting Tom Doherty Assoc., 60 F.3d at 35) (emphasis added). The WideBand Defendants have failed to demonstrate that the effects of the preliminary injunction could not be undone. Based on the evidence provided, it appears that—if the WideBand Defendants were ultimately victorious at trial—WideBand could still complete the Harman Code and deliver it to Harman. And the WideBand Defendants argue that Dr. Yang develops these products in a matter of months, so enjoining them from further developing or delivering the technology pending trial in this matter does not impose harm that could not be undone. (See Tr. of Oct. 17, 2007 Prelim. Inj. Hr'g, at

136-37.) The injunction merely seeks to stop any escalation of the alleged damages, but awards

ClearOne no damages.

The court considers the four factors under the general preliminary injunction standard.

II.   Preliminary Injunction

A.   Substantial Likelihood of Success

The court finds that ClearOne has a substantial likelihood of success on the breach of

contract claims against Dr. Yang.[7] ClearOne has shown that "there are 'questions going to the

merits . . . so serious, substantial, difficult, and doubtful as to make the issue ripe for litigation

and deserving of more deliberate investigation.'" Prairie Band of Potawatomi Indians, 253 F.3d

at 1246-47 (quoting Federal Lands Legal Consortium v. United States, 195 F.3d 1190, 1194

(10th Cir. 1999)).[8]

As described in the Background Section, Dr. Yang signed a comprehensive nondisclosure

agreement with Gentner. The WideBand Defendants do not appear to take issue with the validity

of the NDA or with Dr. Yang's contractual obligations. Indeed, during cross-examination, Dr.

Yang answered "yes" when asked "you have an understanding that you have an obligation to

maintain in confidence information you were provided while you were working at Old

Clearone." (Tr. of Oct. 17, 2007 Prelim. Inj. Hr'g, at 30.)

Rather, the WideBand Defendants emphasize Dr. Yang's "exemplary resume and high

---

[7]Because the court finds a substantial likelihood of success on the breach of contract claims against Dr. Yang, the court will not address the likelihood of success on ClearOne's claims of misappropriation of trade secrets or the breach of fiduciary duty.

[8]The court applies this standard because—as discussed in more detail below—ClearOne has satisfied the other three factors.

9

level of skill" and argue that "[h]e is a highly trained and highly skilled individual, who is legally entitled to earn a living by putting his training and skills to work for others." (Defs.' Obj. to Mot. for Prelim. Inj., at 56.) Notwithstanding Dr. Yang's unquestionable skill and expertise, Dr. Yang did not have the authority—and has not asserted he had the authority—to use the Honeybee Code for the benefit of any person or entity other than ClearOne and its predecessors. If ClearOne can demonstrate either that Dr. Yang "use[d] or disclose[d] [the Honeybee Code] in whole or part," (Yang NDA, ¶ 1.3) or that "[u]pon termination of [his] employment . . . [he had] take[n]" the Honeybee Code, (id., ¶ 1.4) ClearOne can demonstrate that he violated the NDA.

Accordingly, the case turns on whether ClearOne has made a substantial showing that Dr. Yang derived the Harman Code from the Honeybee Code. Although the court recognizes the Biamp Code is not an issue for this injunction, the court needs to address the similarities between the Honeybee and the Biamp Codes to understand the similarities between the Honeybee and the Harman Codes.

There are, therefore, three steps necessary to determine whether ClearOne has shown a substantial likelihood that Dr. Yang derived the Harman Code from the Honeybee Code: whether (1) the Honeybee Code and Algorithms are unique and not in the public domain, (2) the Biamp Code and Algorithms were derived from the Honeybee Code; and (3) the Harman Code and Algorithms were derived from the Biamp Code.

1.   *Honeybee Is Unique*

First, ClearOne has demonstrated that the Honeybee Code and Algorithms are sufficiently unique and not available in the public domain.

Although ClearOne conceded that there are some functional blocks of the Honeybee

Algorithms in the public domain, it is the combination of these blocks that makes the Honeybee

Algorithms unique. (See Tr. of Oct. 12, 2007 Afternoon Prelim. Inj. Hr'g, at 49 ("[T]here are

some unique elements in the Honeybee Code, and there are some public domain elements in the

Honeybee Code.").) Tracy Bathurst, Vice President of Product Line Management for ClearOne,[9]

persuasively compared a general AEC ("GAEC") algorithm to the Honeybee Algorithm to

illustrate "not only the differences between the overall architecture and functional blocks of the

Honeybee Code and . . . the GAEC Diagram, but also the numerous design choices that have

been made for processing the digital signal in both." (Bathurst Aug. 13, 2007 Decl., ¶ 30,

attached as Ex. 16 to Pl.'s Mem. Supp. of Mot. for Prelim. Inj.) Mr. Bathurst also highlighted

several alternatives found in the public domain which illustrate that the choice to use Fast Fourier

Transform ("FFT") in the Honeybee Algorithm is part of its uniqueness. (Id., ¶ 33.)

Additionally, Thomas Makovicka, ClearOne's expert who has spent roughly six hundred

hours analyzing the codes and algorithms in this case, testified that he has never seen the

Honeybee Algorithms in the public domain. (Tr. of Oct. 12, 2007 Morning Prelim. Inj. Hr'g, at

27.) Mr. Makovicka described the "numerous choices that can be made in terms of structuring

the architecture of an audio DSP algorithm for AEC." (Makovicka Aug. 10, 2007 Decl., ¶ 20,

attached as Ex. 3 to Pl.'s Mem. Supp. of Mot. for Prelim. Inj. (hereinafter "Makovicka Aug.

Decl.").) Given the myriad choices available for AEC algorithms, "[t]he choice of, and

---

[9]Previously, Mr. Bathurst "was ClearOne's director of research and development" and he has "led the
design and development of ClearOne's performance and audio DSP telecommunications equipment for the past ten
(10) years." (Bathurst Feb. 28, 2007 Decl., ¶¶ 2-4, attached as Ex. 13 to Pl.'s Mem. Supp. of Mot. for Prelim. Inj.)

organization and structure, of the different functional blocks and their relationship to one

another, are not necessarily dictated by the nature of audio AEC processing." (Id.) And as Mr.

Makovicka explained, modifications from the Biamp Code to the Harman Code "further confirm

that the choices made in the Honeybee Code were not automatically dictated by the nature of

AEC processing . . . ." (Id., ¶ 56.)

The WideBand Defendants did not provide the court any publicly available diagram,

flowchart, algorithm, or analysis which describes, mimics, or depicts anything that closely

resembles the Honeybee Algorithms. Instead, the WideBand Defendants provided a lengthy list

of publications with a vague claim that these documents established the Honeybee Algorithms as

public knowledge. But Mr. Makovicka testified that in his review of those materials he found no

AEC algorithm which reflected the Honeybee. (Tr. of Oct. 12, 2007 Morning Prelim. Inj. Hr'g,

at 27-28.) And Richard Koralek, the WideBand Defendants' own expert, testified that he has not

seen the flowchart of the Honeybee AEC Algorithm publicly disclosed and that he is unaware of

any public disclosure of the blocks which together comprise the Honeybee Algorithms. (Tr. of

Oct. 12, 2007 Afternoon Prelim. Inj. Hr'g, at 101.) Similarly, Dr. Koralek testified that "it would

be very difficult" to determine the Honeybee AEC algorithm without access to the code. (Id. at

97.)

In view of the convincing evidence submitted by ClearOne, the court concludes that

ClearOne has shown a substantial likelihood that the Honeybee Code and Algorithms are unique

and not part of the public domain.

   2.   *The Biamp Code Was Derived from the Honeybee Code*

Second, ClearOne has demonstrated a substantial likelihood that the Biamp Code and

Algorithms were derived from the Honeybee.

Notably, the WideBand Defendants themselves have indicated their products were

derived from ClearOne technology. When marketing WideBand's algorithm to Biamp in 2005,

Mr. Bowers proclaimed that "[t]his algorithm has **functioned successfully in the market for 6**

years. Dating back to the ClearOne, Inc. phone and AccuMic still sold by ClearOne." (Sept.

5, 2005 Email from L. Bowers to M. Czyzewski, Pl.'s Ex. 23 (emphasis added).) And to

illustrate the value of an algorithm—the very product Mr. Bowers explains was actually

developed by ClearOne—Dr. Yang wrote that "[t]he most important thing for AEC is algorithm."

(Aug. 16, 2002 Email from J. Yang to R. Lockhart & M. Czyzewski, cc A. Chiang, Pl.'s Ex. 22.)

But Dr. Yang could not explain "in any detail how [his] algorithm or the algorithm [he] had

conceived in August of 2002 was different from what we've seen in the Honeybee

Algorithm . . . ." (Tr. of Oct. 17, 2007 Prelim. Inj. Hr'g, at 20.)

Additionally, Mr. Makovicka concluded that "there is no doubt that the Biamp Code was

copied or derived from the Honeybee Code, and uses the same core algorithms as used in the

Honeybee Code." (Makovicka Aug. Decl., ¶ 11.) As support, he highlighted that "there are a

number of instances where the C code that remains in the Biamp Source Code reflects a **literal**

copying of the Honeybee Source Code . . . ." (Id., ¶ 35 (emphasis added).) And he explained

that these similarities were possible only if "the Honeybee Source Code was used as a template to

write and develop the Biamp Source Code." (Id., ¶ 36.) He also noted that several file names

and symbolic names were identical between the Honeybee and Biamp Codes, but he "would not expect these reference names to be identical, and certainly not that so many of these names would be the same, unless the []Biamp Source Code was copied or derived from the Honeybee Code." (Makovicka June 4, 2007 Decl., ¶ 33, attached as Ex. 5 to Pl.'s Mem. Supp. of Mot. for Prelim. Inj.)

Mr. Makovicka also explained that the Honeybee and Biamp Codes "both . . . start the initial processing of the audio signal, which is the time domain to frequency domain transformation, using a Fast Fourier Transform ('FFT')." (Makovicka Aug. Decl., ¶ 23.) Similarly, "within Block 1, both sets of code perform a 'Windowing' function on the data, followed by the FFT." (Id., ¶ 24.) He also noted that "the shape of the Windowing functions for both sets of code . . . are essentially identical," (id., ¶ 26) and that the formulas are the same for both the Update Echo Coefficients and the Estimate Echo step, which "cannot be coincidence." (Id., ¶¶ 31-33.) And although the possibility of picking the exact same fraction for the corner frequency resulting in the parameter is in the "thousandths," Mr. Makovicka explained that the Biamp parameter **matches** the Honeybee after adjusting for the block size. (Tr. of Oct. 12, 2007 Morning Prelim. Inj. Hr'g, at 25-26.) In sum, Mr. Makovicka's diagrams "clearly reflect that the [Honeybee Code and Biamp Code] use the same core algorithms and data flow to process the audio signals and perform AEC and related functions." (Makovicka Aug. Decl., ¶ 18.)

Despite extensive cross-examination, the WideBand Defendants were not able to impeach Mr. Makovicka's conclusions, which were strengthened during his redirect examination. The "ret" calculations are so similar that "if I wrote one set of code, three months later I would not be

able to generate the commonality I've seen in this code without having the first code as a

reference . . . ."[10] (Tr. of Oct. 12, 2007 Morning Prelim. Inj. Hr'g, at 24.) Ultimately, Mr.

Makovicka explains that "[t]he commonality between the basic core algorithms, these blocks, is

remarkable. I do not see any way that this code, WideBand Code, was not generated with the

ClearOne Code as a reference design." (Id. at 36.)

ClearOne has established a substantial likelihood that the Biamp Code and Algorithms

were derived from the Honeybee Code and Algorithms.

     3.   The Harman Code Was Similarly Derived from the Honeybee Code

Third, ClearOne has demonstrated a substantial likelihood that the Harman Code and

Algorithms were similarly derived from the Honeybee Code.

After persuasively describing the similarities between the Honeybee and Biamp Codes,

Mr. Makovicka addressed the similarities that the Harman Code shares with the Biamp Code and

the Honeybee Code. Comparing the Harman Code to the Honeybee Code, he concluded "that the

Harmon [sic] Code uses the **same core architecture, functional blocks**, including particular

formulas and calculations . . . and design parameters (again, with some variations)." (Makovicka

Aug. Decl., ¶ 53 (emphasis added).) He also explained that "the Harmon [sic] Code uses the

same core algorithms and data flow to process the audio signals and perform AEC and related

functions, with some modifications . . . as in the Honeybee Code and the Biamp Code." (Id., ¶

---

[10]Based on Mr. Makovicka's testimony, the similarities between the Biamp and Honeybee Codes do not reflect information which had simply merged into Dr. Yang's repertoire. Accordingly, the court finds unpersuasive the WideBand Defendants' argument that the Honeybee Code had lost "'any protection to which it may have been entitled after it has been merged into the employees [sic] own faculties, skill and experience.'" (Defs.' Obj. to Mot. for Prelim. Inj., at 57 (quoting Microbiological Research Corp. v. Muna, 625 P.2d 690, 697 (Utah 1981).)

51.) Additionally, Mr. Makovicka testified that he has no doubt that the echo suppression in the

Harman Code "was **taken** from the Honeybee Code." (Tr. of Oct. 12, 2007 Morning Prelim. Inj.

Hr'g, at 31 (emphasis added).) And he concluded that the Harman Code and Biamp Code "are

basically the same algorithms . . . . **The Harman Code is derived from the Biamp Code**." (Tr.

of Sept. 20, 2007 Afternoon Prelim. Inj. Hr'g, at 11 (emphasis added).)

As additional support for his conclusion, Mr. Makovicka reasoned that WideBand would

likely use the same algorithms "because once a set of workable AEC algorithms are developed, it

would be a complete waste of time and money to start from scratch and re-develop a new AEC

algorithm." (Makovicka Aug. Decl., ¶ 55.)

The court finds a substantial likelihood that the Harman Code was derived from the

Biamp Code, and consequently from the Honeybee Code.

To refute ClearOne's evidence, the WideBand Defendants' expert, Dr. Koralek,

concluded that the Biamp and Harman Codes and Algorithms were probably not derived from the

Honeybee. But notably, Dr. Koralek does not refute the specific conclusions and assertions

offered by Mr. Makovicka's detailed analysis. Rather, Dr. Koralek conceded that "I will need to

do more work" before "offer[ing] any conclusions about whether the WideBand Code or the

Harman Code is derivative of the Honeybee Source Code . . . ." (Tr. of Oct. 12, 2007 Afternoon

Prelim. Inj. Hr'g, at 114-15.) Consequently, he agreed that "[i]t is possible" (id. at 95) that he

will revise his conclusions after additional work because he has only spent "about 20 hours"

analyzing the codes. (Id. at 91.)

This leaves Dr. Yang's own testimony as the WideBand Defendants' strongest evidence

that the Biamp and Harman Codes were not derived from the Honeybee Code. In his

declarations, Dr. Yang claimed that "WideBand developed the WideBand Code over many

(approximately four) months time, during which I authored the Wideband Code in its entirety,

from scratch . . . ."[11] (Yang Mar. 29, 2007 Decl., ¶ 14, Pl.'s Ex. 30 (hereinafter "Yang March

Decl.").) Dr. Yang also testified that he had not worked on any AEC source code before late

2003 or early 2004. (See Tr. of Oct. 17, 2007 Prelim. Inj. Hr'g, at 11.)

　　But these statements are not persuasive in light of the contradicting documentary

evidence. For example, by email on August 6, **2002**, Dr. Yang informed Biamp that "I believe

my algorithm still can achieve the number." (Aug. 6, 2002 Email from J. Yang to M.

Czyzewski, cc R. Lockhart & A. Chiang, Pl.'s Ex. 21 (emphasis added).) Even though Dr.

Yang's email certainly appears to refer to an existing algorithm, he testified that he meant only

"some thinking in [his] mind" when he wrote that email. (Tr. of Oct. 17, 2007 Prelim. Inj. Hr'g,

at 16.) And in an email dated just ten days later—on August 16, 2002—Dr. Yang wrote to

Biamp "I am sure our AEC (algorithm) **is** much better than Gentners' [sic]." (Aug. 16, 2002

Email from J. Yang to R. Lockhart & M. Czyzewski, cc A. Chiang, Pl.'s Ex. 22 (emphasis

added).) Again, although it appears that Dr. Yang was referring to an actual algorithm, Dr. Yang

tried to explain during cross-examination that his statement simply "come[s] from the law of the

physics," and was not based on an actual developed algorithm. (Tr. of Oct. 17, 2007 Prelim. Inj.

Hr'g, at 23)

---

[11]Mr. Makovicka directly refutes Dr. Yang's assertion, explaining that "a 'c' implementation as in WC3 in three to four months time frame is absolutely impossible without having a reference design." (Tr. of Oct. 12, 2007 Morning Prelim. Inj. Hr'g, at 34.)

Dr. Yang's declaration that "there has been no other computer code to date created by WideBand that is derived from the [Biamp] Code" is similarly belied by the documents. (Yang March Decl., ¶ 14) Before the Harman Code was developed, Rex Reed, Director of Engineering at Harman, explained that Harman had "negotiated to license from Wideband the **current AEC algorithm**." (April 10, 2007 Email from R. Reed to J. Yang, cc B. Wilson, L. Bowers, Pl.'s Ex. 87 (emphasis added).) And Mr. Reed expected Dr. Yang's algorithm to "port quickly to this hardware since [Harman] used the wideband reference design." (Id.) In light of Harman's understanding, it appears that WideBand did actually derive additional products from the Biamp Code.

In sum, the court finds Dr. Yang—as a Defendant in this case who is far from impartial—unconvincing.

Finally, the WideBand Defendants argue their codes are clearly unrelated to the Honeybee Code because their products run on a faster and newer chip. (See Yang March Decl., ¶ 16 ("It is impossible to simply use 'interface code' to use C32 on the C6713 DSP because the TI C6713 DSP is totally different from the C32 DSP, C6713 has totally different hardware architecture from C32 . . . .").) But this argument is not persuasive because the WideBand products actually run on the next generation of the chip used by the Honeybee, and "it is standard in the industry to port code from earlier generation processors to new, faster processors that can perform more 'MIPS' (million instructions per second" [sic]) and perform more operations in parallel." (Makovicka Aug. Decl., ¶13.) As Mr. Makovicka explained, "if an engineer were to want to port the Honeybee Code used on the C30 family of processors to a faster chip, and went to the Texas

18

Instruments website, they would be direct [sic] to use one of the TI C 67x family of chips, of which the TI C6713 is one." (Id.) The fact that the Honeybee Code runs on an older and slower chip provides no support for the WideBand Defendants' position.

The court finds a substantial likelihood that ClearOne will succeed on its claim that Dr. Yang violated the NDA and derived the Harman Code from the Honeybee Code.

B.   Irreparable Harm

The Wideband Defendants argue that ClearOne cannot establish irreparable harm because ClearOne has not used the Honeybee Code in five years.

But ClearOne has established that its competitive market position is threatened without the injunction. And irreparable harm is "based on such factors as the difficulty in calculating damages, the loss of a unique product, and existence of intangible harms such as **loss of goodwill or competitive market position**." Dominion Video Satellite, 356 F.3d at 1264 (emphasis added).

Mr. Bathurst testified that "[t]here is not a lot of people that have been successful in developing algorithms that are commercially viable in our market. Many have tried . . . and have not been able to succeed." (Tr. of Oct. 12, 2007 Afternoon Prelim. Inj. Hr'g, at 58-59.) Accordingly, "[b]y maintaining the secrecy of the Honeybee Source Code and its algorithm for AEC, ClearOne is able **to maintain its position in the market** and opportunities in emerging markets notwithstanding actual and potential competition from other (and larger) companies (including Harman Music Group, Inc.)." (Bathurst Oct. 3, 2007 Decl., ¶ 23 (emphasis added).) And the difficulty of developing the algorithm is reflected by the major companies—including

3M, Sony, and Bose—that have negotiated with ClearOne to develop and license AEC

technology for their benefit. (See id., ¶ 24.) Moreover, the substantial likelihood that Dr. Yang

used the Honeybee Code in violation of his NDA demonstrates that it is exceptionally difficult to

create a functional code and algorithm—reflecting the immense value—as well as the immense

harm presented by a competitor's possessing the technology.

Given the value of a functional AEC algorithm—and the threat presented by a

competitor's acquiring a functional algorithm—the fact that ClearOne has not used the Honeybee

Code in five years is immaterial. Allowing the Harman Code to go to market presents irreparable

harm to ClearOne, whether or not ClearOne actively uses the Honeybee.[12]

C.   Balance of the Harms

ClearOne "must also show that the injury to it if the injunction does not issue outweighs

the injury to" the WideBand Defendants. Tri-State Generation and Transmission Ass'n v.

Shoshone River Power, Inc., 805 F.2d 351, 356 (10th Cir. 1986).

The harm to ClearOne of denying the injunction is discussed above. And it appears the

WideBand Defendants will suffer little harm if the injunction is issued. As noted, the WideBand

Defendants assert that Dr. Yang can develop an AEC algorithm and code from scratch in a matter

of months. Consequently, delaying WideBand from developing and delivering the Harman Code

until this case is resolved causes minimal injury.

The WideBand Defendants also argue that "granting the injunction will almost certainly

put WideBand out of business." (Defs.' Obj. to Mot. for Prelim. Inj., at 34.) But this conclusory

---

[12]Although not dispositive, the express language from Dr. Yang's NDA recognizes "that my breach of this
Agreement may cause the Company irreparable harm . . . ." (Yang NDA, ¶ 5.2.)

allegation alone does not provide a basis to determine that the injunction would actually put

WideBand out of business. And the WideBand Defendants offer no credible analysis or

testimony to support this assertion. See Keirnan v. Utah Transit Auth., 339 F.3d 1217, 1221

(10th Cir. 2003) ("UTA has offered no documented information regarding the severity of these

concerns.").

Moreover, the WideBand Defendants' concerns notwithstanding, the court has already

found a substantial likelihood that the Harman Code is derived from the Honeybee Code. So any

harm WideBand suffers from this injunction appears to be the result of its own misconduct. See

Utahns For Better Transp. v. U.S. Dept. of Transp., No. 01-4216, 01-4217, 01-4220, 2001 WL

1739458, at *2 (10th Cir. Nov. 16, 2001) (granting injunction despite "substantial evidence that

they will incur a financial loss if the injunction is granted, [because] it appears that much of this

harm is self-inflicted.").

Consequently, the harm to ClearOne of denying the injunction far outweighs the harm the

injunction may cause to the WideBand Defendants.

D.   Public Interest

Finally, the public interest favors issuing the injunction. Although the court recognizes

the public has a strong interest in a competitive marketplace, the public has an even greater

interest in honoring contractual obligations and in fostering honest competition. Fisher

Bioservices, Inc. v. Bilcare, Inc., No. Civ.A. 06-567, 2006 WL 1517382, at *21 (E.D. Pa. May

31, 2006) ("Granting equitable relief such as a preliminary injunction may serve the public

interest if it will 'discourage . . . the wrongful use of confidential information and trade secrets

and the disavowal of freely contracted obligations.'") (quoting Nat'l Bus. Servs., Inc. v. Wright,

2 F. Supp. 2d 701, 709 (E.D. Pa. 1998)).

 All four factors weigh heavily in favor of issuing the injunction.

III. Proper Bond

 Although the court grants the preliminary injunction, the parties have not addressed what

bond the court should order. Accordingly, the parties have until November 2, 2007, to submit

briefing on this issue.

<div align="center">

ORDER

</div>

 For the reasons stated above, the court GRANTS ClearOne's Motion for a Preliminary

Injunction (dkt. #344). Dr. Yang, as well as his agents, servants, officers, employees, entities and

those acting under his direction or control, are hereby enjoined from working on or delivering

any computer code—either source code or object code—to Harman until the completion of trial.

 SO ORDERED this 30th day of October, 2007.

BY THE COURT:

TENA CAMPBELL
Chief Judge